

# RA-54

## INSTRUCTION MANUAL

KENWOOD

**For your records**

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model \_\_\_\_\_ Serial number \_\_\_\_\_

**Unpacking**

Unpack the unit carefully and make sure that all accessories and cables are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

**Important!****U.S.A., Canada, Australia, U.K. and Europe**

These units are not equipped with an AC voltage selector switch and the discussion of such a switch that follows should be disregarded.

**All other countries**

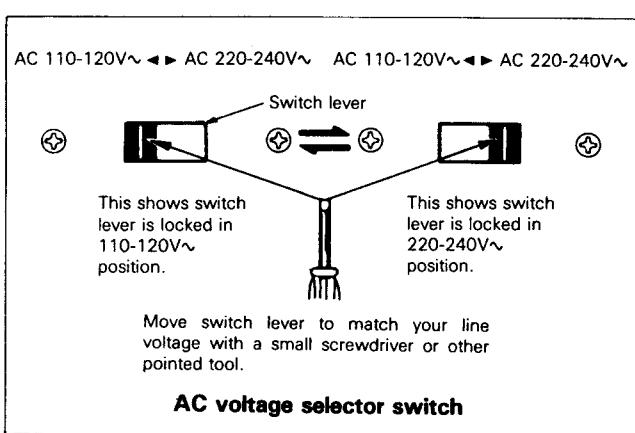
Units shipped to countries other than U.S.A., Canada, Australia, U.K. and Europe are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

**AC voltage selection**

This unit operates on 110-120 volts or 220-240 volts AC. The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

**Note:**

Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

**For United Kingdom**

The mains plug must be removed from the wall socket prior to any internal examination.

**Important**

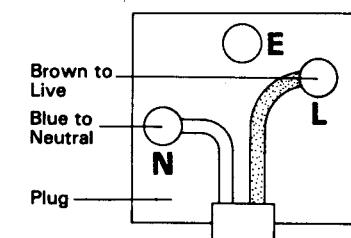
The wires in this mains lead are coloured in accordance with the following code:

Blue .....	Neutral
Brown .....	Live

The wires in this mains lead must be connected to the terminals in the plug as follows:

**Wire colour**

Blue .....	N or Black
Brown .....	L or Red

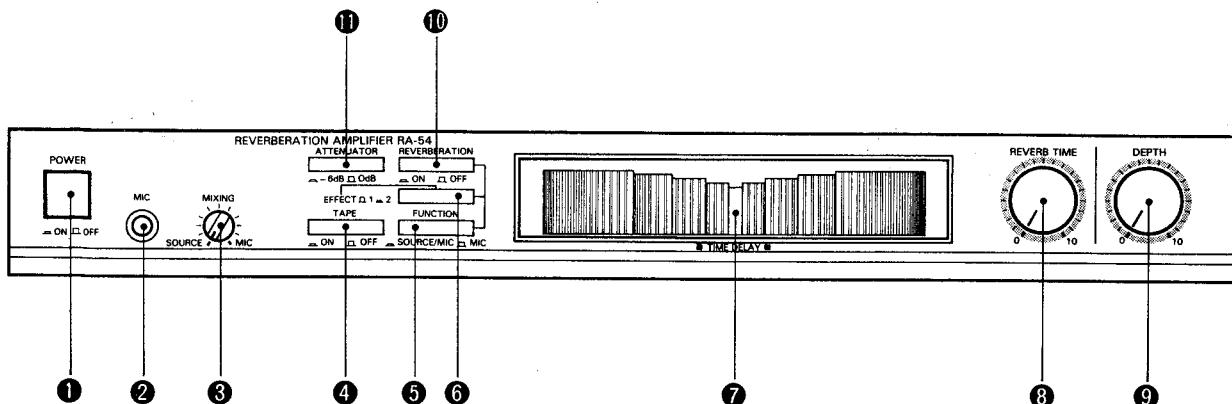
**Plug terminal marking****Notes:**

- 1) If a 13-amp plug is used, this must be fitted with a 5-amp fuse.
- 2) If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal.

**WARNING:**

**TO PREVENT FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

# Controls and indicators



## ① POWER switch

Depress the power switch and the lamp at the center of the reverberation indicator will light, indicating that the power is ON. To turn off the power, depress the switch again.

## ② MIC jack

Used to connect microphone.

## ③ MIXING control

To raise volume level of microphones, turn this control clockwise.

To raise volume level of sources, turn this control counterclockwise.

When the microphone is not used, set this control to SOURCE.

## ④ TAPE monitor switch

**ON:** To playback a tape deck connected to the amplifier or to monitor the sound being recorded.

**OFF:** To listen to other program sources (FM/AM, turntable, microphone, etc.) connected to the amplifier.

## ⑤ FUNCTION switch

**SOURCE/MIC:** To add reverberation effect on to both sources and microphone sound.

**MIC:** To add reverberation effect only on to microphone sound.

## ⑥ EFFECT switch

To obtain a normal reverberation effect, set this switch to the 1 position (□). To obtain a dual effect, set the switch to the 2 position (□).

## ⑦ Reverberation indicator

This is used to visually check the reverberation effect. The lights of the indicator lamps will spread to left and right according to the strength of reverberation.

## ⑧ REVERB TIME control

Adjusts the reverberation time. With the effect switch in the 1 position, the reverberation time is adjustable from 0 to 2.5 sec., and in the 2 position, from 30 to 80 msec.

## ⑨ DEPTH control

Adjusts the amount of reverberation. Turning the control clockwise will emphasize the reverberation.

## ⑩ REVERBERATION switch

This switch turns the reverberation unit ON and OFF.

## ⑪ ATTENUATOR switch

This switch is used to reduce the input level to 1/2, eliminating any possibility of distortion due to high input signals.

# Safety precautions

## CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN

**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

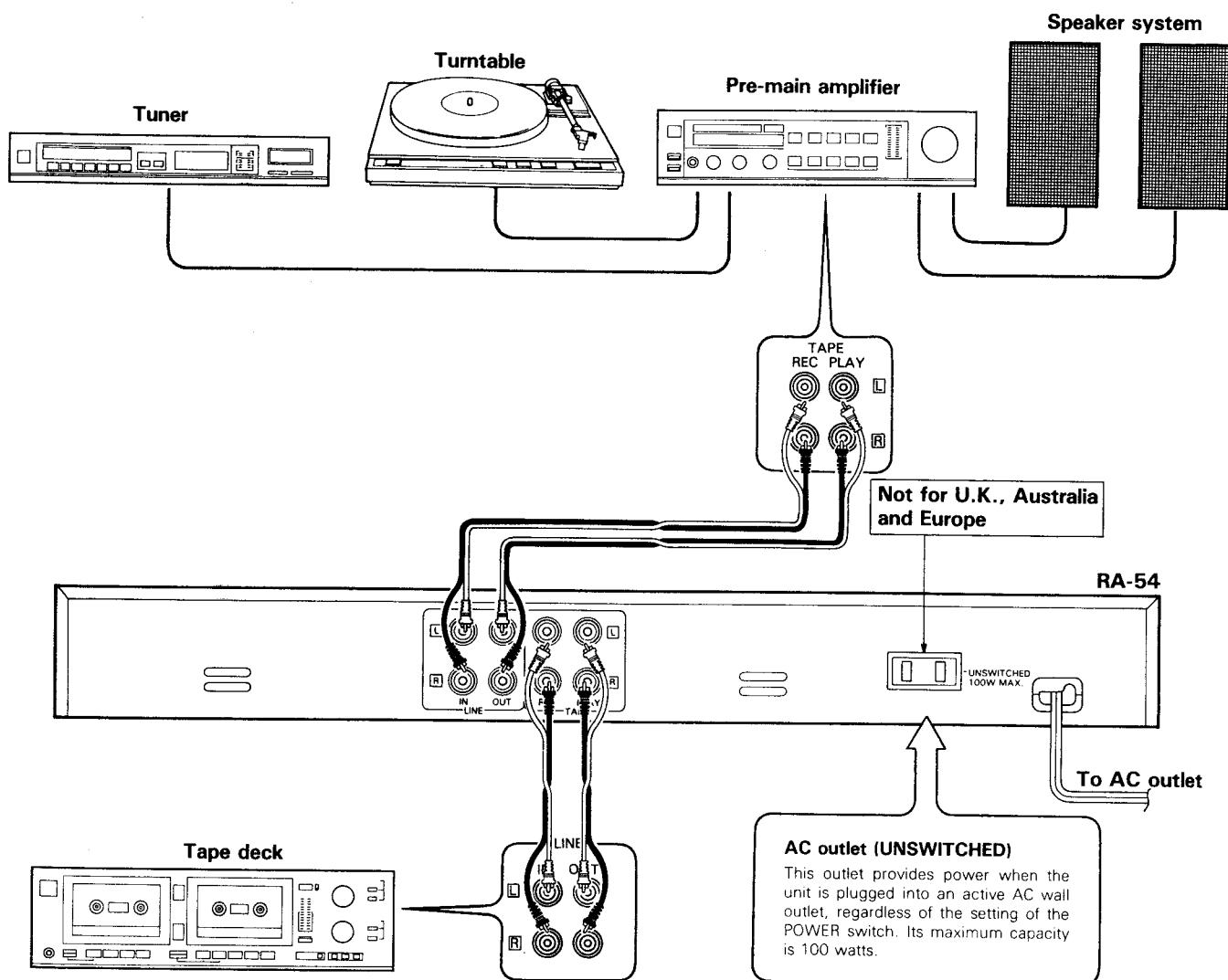


The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

# System connections/Operating instructions



## Connections and precautions

1. Each connecting cord must be connected securely to the corresponding terminals (R to R and L to L). Poor connection can result in production of noise.
2. Before connecting or disconnecting any cord, be sure to turn off the POWER switches of the RA-54 and pre-main amplifier.
3. Do not bind the input/output cords together with the power cord and speaker cord. Do not extend the input/output cords unnecessarily to avoid the possibility of producing noise or deterioration of tonal quality.

### Safety precaution for AC plug (For Canada)

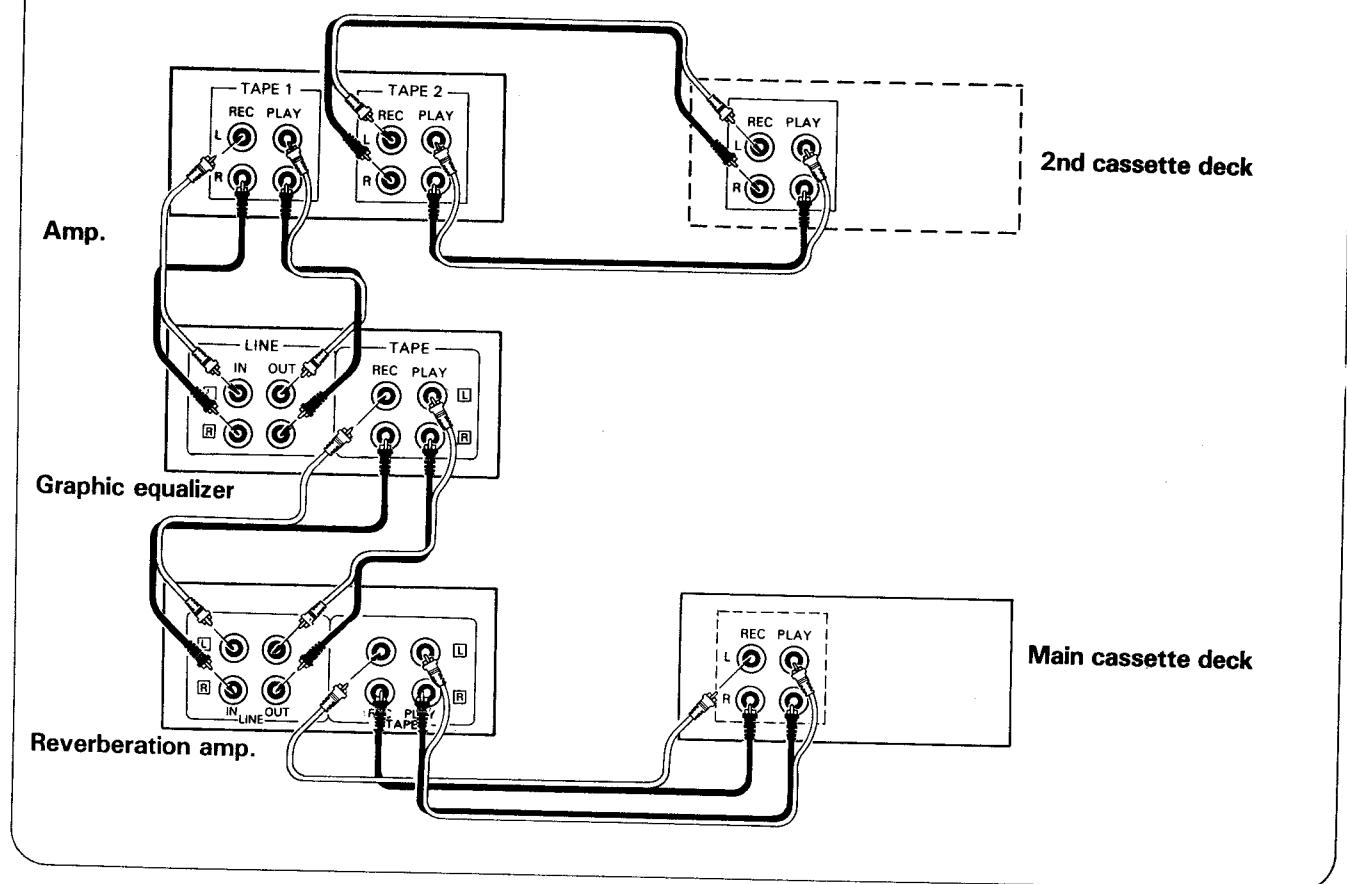
**CAUTION:** TO PREVENT ELECTRIC SHOCK  
DO NOT USE THIS (POLARIZED) PLUG  
WITH AN EXTENSION CORD, RECEPTACLE  
OR OTHER OUTLET UNLESS THE BLADES  
CAN BE FULLY INSERTED TO PREVENT  
BLADE EXPOSURE.

## Operating procedure

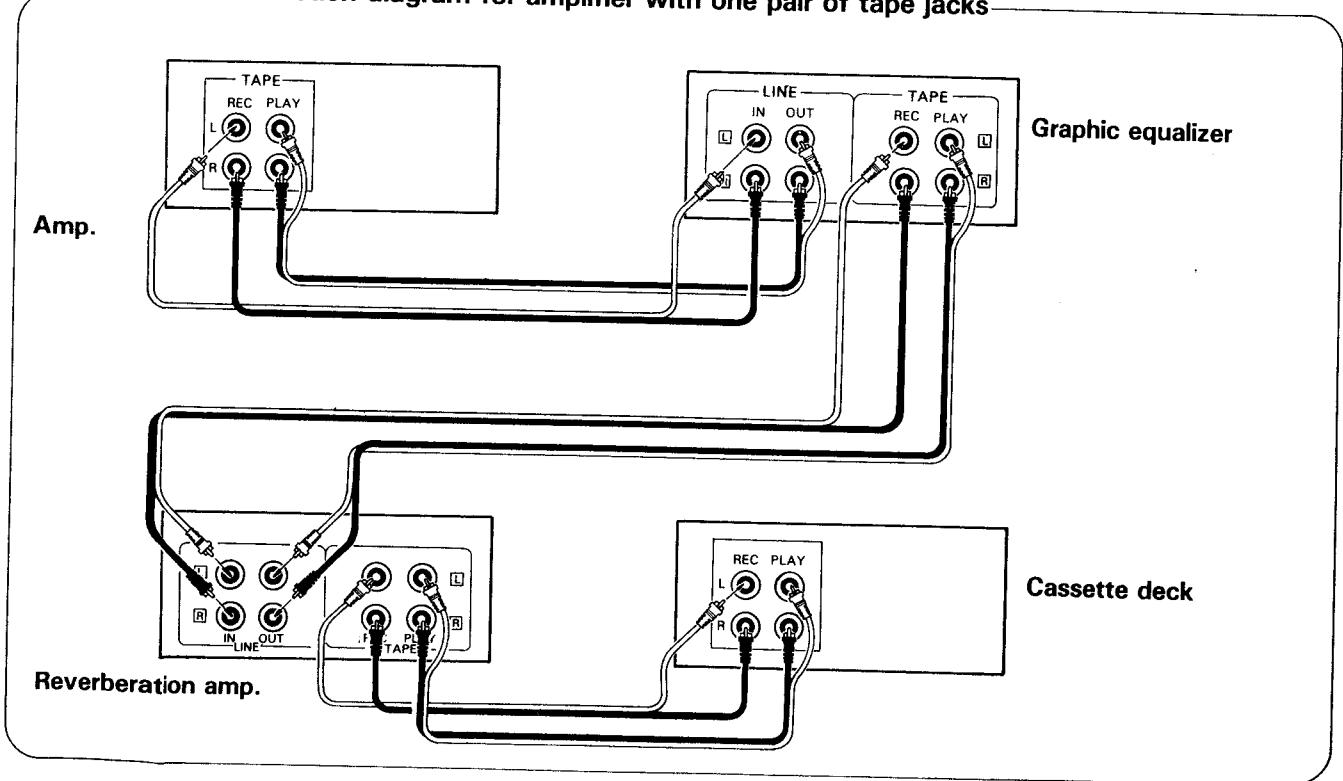
1. Depress the POWER switch to turn on the power.
2. Set the pre-main amplifier tape monitor switch to TAPE or ON.
3. For playback of tape, set the TAPE monitor switch to ON. For listening to other program sources, set the switch to OFF.
4. Set the REVERBERATION switch to ON.
5. Set the EFFECT switch to the desired position.
6. Adjust the REVERB TIME control and DEPTH control as required.
7. When the microphone is used, set the FUNCTION switch to SOURCE/MIC, to add the reverberation effect on to both sources and to microphone sound. Adjust the relative sound level between source and microphone with the MIXING control. To add the reverberation effect only on to microphone sound, set this switch to MIC.
8. To eliminate the reverberation effect, release the REVERBERATION switch.

# Connection diagram

Connection diagram for amplifier with two pairs of tape jacks



Connection diagram for amplifier with one pair of tape jacks



# Operation guide

The operating procedures when the optional accessories are connected are as follows.

**Ex.** When the GE-54 and RA-54 are connected

## <Listening mode>

**When the amplifier is equipped with two pairs of tape jacks**

Operation mode	Graphic equalizer mode	Reverberation amplifier mode	Amplifier input selector	Amplifier TAPE 1 switch	Graphic equalizer			Reverberation amplifier		
					Tape monitoring	Equalization	Equalization recording	Tape monitoring	Reverberation	Function
PHONO, TUNER, CD, AUX, VIDEO or TAPE 2 Same for PHONO DIRECT REC	Out	Out	PHONO, TUNER, CD/AUX or TAPE 2	Off	....	....	....	....	....	....
	In	Out		On	Off	On	....	....	....	....
	Out	In		On	....	....	....	Off	On	SOURCE/MIC
	In	In		On	On	On	....	Off	On	SOURCE/MIC
TAPE 1 Same for PHONO DIRECT REC	Out	Out	....	On	....	....	....	....	....	....
	In	Out		On	On	On	....	....	....	....
	Out	In		On	....	....	....	On	On	SOURCE/MIC
	In	In		On	On	On	....	On	On	SOURCE/MIC

**When the amplifier is equipped with one pair of tape jacks**

PHONO, TUNER or CD/AUX	Out	In	PHONO, TUNER or CD/AUX	TAPE switch	Off	....	....	....	....	....
				On	Off	On	....	....	....	....
				On	....	....	....	Off	On	SOURCE/MIC
				On	On	On	....	Off	On	SOURCE/MIC
				On	....	....	....	....	....	....
TAPE	Out	Out	....	On	On	On	....	....	....	....
	In	Out		On	On	On	....	....	....	....
	Out	In		On	....	....	....	On	On	SOURCE/MIC
	In	In		On	On	On	....	On	On	SOURCE/MIC

## <Recording mode>

**When the amplifier is equipped with two pairs of tape jacks**

Operation mode	Graphic equalizer mode	Reverberation amplifier mode	Amplifier input selector	Amplifier TAPE 1 switch	Graphic equalizer			Reverberation amplifier		
					Tape monitoring	Equalization	Equalization recording	Tape monitoring	Reverberation	Function
PHONO, TUNER, or CD, AUX, VIDEO (to TAPE 2)	Out	Out	PHONO, TUNER or CD/AUX	Off	....	....	....	....	....	....
	In	Out		Not applicable						
	Out	In		Not applicable						
	In	In		Not applicable						
Tape 1 (to TAPE 2)	Out	Out	(VIDEO) PHONO TUNER CD/AUX TAPE 2	Off	....	....	....	....	....	....
	In	Out		Off	Off	On	On	....	....	....
	Out	In		Off	....	....	....	Off	On	....
	In	In		Off	Off	On	On	Off	On	....
PHONO, DIRECT RECORDING (to TAPE 1)	Out	Out	PHONO, TUNER, CD/AUX or TAPE 2	On	....	....	....	....	....	....
	In	Out		On	Off	On	On	....	....	....
	Out	In		On	....	....	....	Off	On	SOURCE/MIC
	*	In		On	Off	On	On	Off	On	SOURCE/MIC
PHONO, TUNER, CD/AUX or TAPE 2 (to TAPE 1)	Out	Out		On	....	....	....	....	....	....
	In	Out		On	Off	On	On	....	....	....
	Out	In		On	....	....	....	Off	On	SOURCE/MIC
	*	In		On	Off	On	On	Off	On	SOURCE/MIC

**When the amplifier is equipped with one pair of tape jacks**

PHONO, TUNER, or CD/AUX (to TAPE)	Out	In	PHONO, TUNER, or CD/AUX	TAPE switch	On	....	....	....	....	....
				On	Off	On	On	....	....	....
				On	....	....	....	Off	On	....
				On	Off	On	On	Off	On	....
				On	....	....	....	....	....	....

\* First, set the unit to the tape monitor mode. Then, set the unit to the recording mode.

# Safety precautions

## Cleaning

Do not use volatile solvents such as alcohol, paint thinner, gasoline, benzine, etc. to clean the cabinet. Use a silicone cloth or a clean dry cloth.

## Power cord

Always insert or remove the power plug from the AC outlet by grasping the plug body. Never pull or stretch the cord. Take care that the cord is not subject to traffic or bent sharply around furniture. Keep heavy objects off the cord; never route it under rugs, and avoid the use of extra extension cord. Attention to these precautions will avoid fire or shock hazards.

## Service or modifications

Do not remove the cabinet or touch internal parts. Refer all service to qualified service personnel. Unauthorized modifications can result in a dangerous shock hazard and can void the warranty.

## Installation precautions

- a) Avoid locations subject to direct sunlight.
- b) Avoid high or low temperature extremes.
- c) Keep the unit away from heat radiating sources.
- d) Choose a location that is relatively free of vibration or excessive dust.
- e) Make sure power is off before making any system connections.

# In case of difficulty

If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representatives.

Symptom	Cause	Remedy
No sound although AC is switched on. Indicator not illuminated.	Poor AC plug connection.	Check plug contact.
No sound from LEFT and RIGHT.	1. Speaker cables disconnected. 2. Volume control of amplifier fully counterclockwise. 3. Tape monitor switch of amplifier set to SOURCE. 4. Tape monitor switch of GE-54 or RA-54 set to ON.	1. Check speaker connections. 2. Turn up volume control. 3. Set tape monitor switch of amplifier to TAPE. 4. Set tape monitor switch to OFF except when using tape deck.
Sound from one side only.	1. Speaker cords disconnected. 2. Input or output cables disconnected. 3. Balance control of amplifier set to one extreme or the others.	1. Check speaker connections. 2. Check input or output connections. 3. Adjust balance control of amplifier.

# Specifications

## Reverberation time

Reverberating time.....0—2.5 sec. (Effect 1)  
Delay time.....30—80 msec. (Effect 2)

Frequency response.....10 Hz—35 kHz, +0 dB, -0.5 dB

Harmonic distortion.....Less than 0.01% (20 Hz—20 kHz, output 1 V)

S/N ratio.....100 dB (Short-circuited IHF-A network)

Maximum output.....7 V (1 kHz, THD 0.01%, RL47 kΩ)

Gain.....0 dB

Input impedance.....47 kΩ

Output impedance.....600Ω

Mic input sensitivity.....1 mV

Mic input impedance.....36 kΩ

Attenuation.....-6 dB at 1 kHz

Input sensitivity.....150 mV

Power consumption.....18 W

Dimensions.....420(W) x 57(H) x 216(D) mm (16-17/32" x 2-13/64" x 8-1/2")

Weight (net).....2.5 kg (5.5 lb)

## Note:

We follow a policy of continuous advancements in development. For this reason specifications may be changed without notice.